

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/726,967A
Source: IFWO
Date Processed by STIC: 12/20/04

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IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/726,967A

DATE: 12/20/2004

TIME: 12:56:52

Input Set : A:\Sunesis-0021.ST25.txt

Output Set: N:\CRF4\12202004\J726967A.raw

3 <110> APPLICANT: Ballinger, Marcus

5 <120> TITLE OF INVENTION: Constructs for Homogenously Processed Preparations of Beta Site

6 App-Cleaving Enzyme

8 <130> FILE REFERENCE: 2004345-0021

10 <140> CURRENT APPLICATION NUMBER: 10/726,967A

11 <141> CURRENT FILING DATE: 2003-12-02

13 <160> NUMBER OF SEQ ID NOS: 110

15 <170> SOFTWARE: PatentIn version 3.2

17 <210> SEQ ID NO: 1

18 <211> LENGTH: 501

19 <212> TYPE: PRT

20 <213> ORGANISM: Artificial

22 <220> FEATURE:

23 <223> OTHER INFORMATION: Full length human BACE1 isform A

25 <400> SEQUENCE: 1

27 Met Ala Gln Ala Leu Pro Trp Leu Leu Leu Trp Met Gly Ala Gly Val

28 1 5 10 15

31 Leu Pro Ala His Gly Thr Gln His Gly Ile Arg Leu Pro Leu Arg Ser

32 20 25 30

35 Gly Leu Gly Gly Ala Pro Leu Gly Leu Arg Leu Pro Arg Glu Thr Asp

36 35 40 45

39 Glu Glu Pro Glu Glu Pro Gly Arg Arg Gly Ser Phe Val Glu Met Val

40 50 55 60

43 Asp Asn Leu Arg Gly Lys Ser Gly Gln Gly Tyr Tyr Val Glu Met Thr

44 65 70 75 80

47 Val Gly Ser Pro Pro Gln Thr Leu Asn Ile Leu Val Asp Thr Gly Ser

48 85 90 95

51 Ser Asn Phe Ala Val Gly Ala Ala Pro His Pro Phe Leu His Arg Tyr

52 100 105 110

55 Tyr Gln Arg Gln Leu Ser Ser Thr Tyr Arg Asp Leu Arg Lys Gly Val

56 115 120 125

59 Tyr Val Pro Tyr Thr Gln Gly Lys Trp Glu Gly Glu Leu Gly Thr Asp

60 130 135 140

63 Leu Val Ser Ile Pro His Gly Pro Asn Val Thr Val Arg Ala Asn Ile

64 145 150 155 160

67 Ala Ala Ile Thr Glu Ser Asp Lys Phe Phe Ile Asn Gly Ser Asn Trp

68 165 170 175

71 Glu Gly Ile Leu Gly Leu Ala Tyr Ala Glu Ile Ala Arg Pro Asp Asp

72 180 185 190

75 Ser Leu Glu Pro Phe Phe Asp Ser Leu Val Lys Gln Thr His Val Pro

76 195 200 205

79 Asn Leu Phe Ser Leu Gln Leu Cys Gly Ala Gly Phe Pro Leu Asn Gln

80 210 215 220

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```

83 Ser Glu Val Leu Ala Ser Val Gly Gly Ser Met Ile Ile Gly Gly Ile
84 225                230                235                240
87 Asp His Ser Leu Tyr Thr Gly Ser Leu Trp Tyr Thr Pro Ile Arg Arg
88                245                250                255
91 Glu Trp Tyr Tyr Glu Val Ile Ile Val Arg Val Glu Ile Asn Gly Gln
92                260                265                270
95 Asp Leu Lys Met Asp Cys Lys Glu Tyr Asn Tyr Asp Lys Ser Ile Val
96                275                280                285
99 Asp Ser Gly Thr Thr Asn Leu Arg Leu Pro Lys Lys Val Phe Glu Ala
100 290                295                300
103 Ala Val Lys Ser Ile Lys Ala Ala Ser Ser Thr Glu Lys Phe Pro Asp
104 305                310                315                320
107 Gly Phe Trp Leu Gly Glu Gln Leu Val Cys Trp Gln Ala Gly Thr Thr
108                325                330                335
111 Pro Trp Asn Ile Phe Pro Val Ile Ser Leu Tyr Leu Met Gly Glu Val
112                340                345                350
115 Thr Asn Gln Ser Phe Arg Ile Thr Ile Leu Pro Gln Gln Tyr Leu Arg
116                355                360                365
119 Pro Val Glu Asp Val Ala Thr Ser Gln Asp Asp Cys Tyr Lys Phe Ala
120 370                375                380
123 Ile Ser Gln Ser Ser Thr Gly Thr Val Met Gly Ala Val Ile Met Glu
124 385                390                395                400
127 Gly Phe Tyr Val Val Phe Asp Arg Ala Arg Lys Arg Ile Gly Phe Ala
128                405                410                415
131 Val Ser Ala Cys His Val His Asp Glu Phe Arg Thr Ala Ala Val Glu
132                420                425                430
135 Gly Pro Phe Val Thr Leu Asp Met Glu Asp Cys Gly Tyr Asn Ile Pro
136                435                440                445
139 Gln Thr Asp Glu Ser Thr Leu Met Thr Ile Ala Tyr Val Met Ala Ala
140 450                455                460
143 Ile Cys Ala Leu Phe Met Leu Pro Leu Cys Leu Met Val Cys Gln Trp
144 465                470                475                480
147 Arg Cys Leu Arg Cys Leu Arg Gln Gln His Asp Asp Phe Ala Asp Asp
148                485                490                495
151 Ile Ser Leu Leu Lys
152                500
155 <210> SEQ ID NO: 2
156 <211> LENGTH: 10
157 <212> TYPE: PRT
158 <213> ORGANISM: Artificial
160 <220> FEATURE:
161 <223> OTHER INFORMATION: Beta secretase cleavage site of Swedish mutant of human
amyloid
162 precursor protein (APP)
164 <400> SEQUENCE: 2
166 Ser Glu Val Asn Leu Asp Ala Glu Phe Arg
167 1                5                10
170 <210> SEQ ID NO: 3
171 <211> LENGTH: 16
172 <212> TYPE: PRT

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```

173 <213> ORGANISM: Artificial
175 <220> FEATURE:
176 <223> OTHER INFORMATION: Residues 22-37 of human BACE1 preprosequence
178 <400> SEQUENCE: 3
180 Thr Gln His Gly Ile Arg Leu Pro Leu Arg Ser Gly Leu Gly Gly Ala
181 1          5          10          15
184 <210> SEQ ID NO: 4
185 <211> LENGTH: 6
186 <212> TYPE: PRT
187 <213> ORGANISM: Artificial
189 <220> FEATURE:
190 <223> OTHER INFORMATION: Preferred thrombin cleavage site
192 <400> SEQUENCE: 4
194 Leu Val Pro Arg Gly Ser
195 1          5
198 <210> SEQ ID NO: 5
199 <211> LENGTH: 7
200 <212> TYPE: PRT
201 <213> ORGANISM: Artificial
203 <220> FEATURE:
204 <223> OTHER INFORMATION: TEV protease cleavage site
207 <220> FEATURE:
208 <221> NAME/KEY: misc_feature
209 <222> LOCATION: (7)..(7)
210 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
212 <400> SEQUENCE: 5
W--> 214 Glu Asn Leu Tyr Phe Asn Xaa
215 1          5
218 <210> SEQ ID NO: 6
219 <211> LENGTH: 7
220 <212> TYPE: PRT
221 <213> ORGANISM: Artificial
223 <220> FEATURE:
224 <223> OTHER INFORMATION: Preferred TEV protease cleavage site
226 <400> SEQUENCE: 6
228 Glu Asn Leu Tyr Phe Asn Gly
229 1          5
232 <210> SEQ ID NO: 7
233 <211> LENGTH: 7
234 <212> TYPE: PRT
235 <213> ORGANISM: Artificial
237 <220> FEATURE:
238 <223> OTHER INFORMATION: Preferred TEV protease cleavage site
240 <400> SEQUENCE: 7
242 Glu Asn Leu Tyr Phe Asn Ala
243 1          5
246 <210> SEQ ID NO: 8
247 <211> LENGTH: 5
248 <212> TYPE: PRT

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Input Set : A:\Sunesis-0021.ST25.txt

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249 <213> ORGANISM: Artificial
251 <220> FEATURE:
252 <223> OTHER INFORMATION: Genenase I cleavage site
255 <220> FEATURE:
256 <221> NAME/KEY: misc_feature
257 <222> LOCATION: (2)..(2)
258 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
260 <400> SEQUENCE: 8

W--> 262 Ala Xaa His Tyr Ala

263 1 5
266 <210> SEQ ID NO: 9
267 <211> LENGTH: 5
268 <212> TYPE: PRT
269 <213> ORGANISM: Artificial
271 <220> FEATURE:
272 <223> OTHER INFORMATION: Genenase I cleavage site
275 <220> FEATURE:
276 <221> NAME/KEY: misc_feature
277 <222> LOCATION: (2)..(2)
278 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
280 <400> SEQUENCE: 9

W--> 282 Ala Xaa His Phe Ala

283 1 5
286 <210> SEQ ID NO: 10
287 <211> LENGTH: 5
288 <212> TYPE: PRT
289 <213> ORGANISM: Artificial
291 <220> FEATURE:
292 <223> OTHER INFORMATION: Genenase I cleavage site
295 <220> FEATURE:
296 <221> NAME/KEY: misc_feature
297 <222> LOCATION: (2)..(2)
298 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
300 <400> SEQUENCE: 10

W--> 302 Ala Xaa His Leu Ala

303 1 5
306 <210> SEQ ID NO: 11
307 <211> LENGTH: 5
308 <212> TYPE: PRT
309 <213> ORGANISM: Artificial
311 <220> FEATURE:
312 <223> OTHER INFORMATION: Genenase I cleavage site
315 <220> FEATURE:
316 <221> NAME/KEY: misc_feature
317 <222> LOCATION: (2)..(2)
318 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
320 <400> SEQUENCE: 11

W--> 322 Phe Xaa His Tyr Ala

323 1 5

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Input Set : A:\Sunesis-0021.ST25.txt

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326 <210> SEQ ID NO: 12
327 <211> LENGTH: 5
328 <212> TYPE: PRT
329 <213> ORGANISM: Artificial
331 <220> FEATURE:
332 <223> OTHER INFORMATION: Genenase I cleavage site
335 <220> FEATURE:
336 <221> NAME/KEY: misc_feature
337 <222> LOCATION: (2)..(2)
338 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
340 <400> SEQUENCE: 12

W--> 342 Phe Xaa His Phe Ala

343 1 5
346 <210> SEQ ID NO: 13
347 <211> LENGTH: 5
348 <212> TYPE: PRT
349 <213> ORGANISM: Artificial
351 <220> FEATURE:
352 <223> OTHER INFORMATION: Genenase I cleavage site
355 <220> FEATURE:
356 <221> NAME/KEY: misc_feature
357 <222> LOCATION: (2)..(2)
358 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
360 <400> SEQUENCE: 13

W--> 362 Phe Xaa His Leu Ala

363 1 5
366 <210> SEQ ID NO: 14
367 <211> LENGTH: 5
368 <212> TYPE: PRT
369 <213> ORGANISM: Artificial
371 <220> FEATURE:
372 <223> OTHER INFORMATION: Genenase I cleavage site
375 <220> FEATURE:
376 <221> NAME/KEY: misc_feature
377 <222> LOCATION: (2)..(2)
378 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
380 <400> SEQUENCE: 14

W--> 382 Leu Xaa His Tyr Ala

383 1 5
386 <210> SEQ ID NO: 15
387 <211> LENGTH: 5
388 <212> TYPE: PRT
389 <213> ORGANISM: Artificial
391 <220> FEATURE:
392 <223> OTHER INFORMATION: Genenase I cleavage site
395 <220> FEATURE:
396 <221> NAME/KEY: misc_feature
397 <222> LOCATION: (2)..(2)
398 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/726,967A

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Input Set : A:\Sunesis-0021.ST25.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; Xaa Pos. 7
Seq#:8; Xaa Pos. 2
Seq#:9; Xaa Pos. 2
Seq#:10; Xaa Pos. 2
Seq#:11; Xaa Pos. 2
Seq#:12; Xaa Pos. 2
Seq#:13; Xaa Pos. 2
Seq#:14; Xaa Pos. 2
Seq#:15; Xaa Pos. 2
Seq#:16; Xaa Pos. 2
Seq#:17; Xaa Pos. 2
Seq#:18; Xaa Pos. 2
Seq#:19; Xaa Pos. 2
Seq#:37; Xaa Pos. 3,5
Seq#:38; Xaa Pos. 3,5
Seq#:39; Xaa Pos. 3,5
Seq#:40; Xaa Pos. 3,5
Seq#:41; Xaa Pos. 3,5
Seq#:42; Xaa Pos. 3,5
Seq#:43; Xaa Pos. 3,5
Seq#:44; Xaa Pos. 3,5
Seq#:45; Xaa Pos. 3,5
Seq#:46; Xaa Pos. 3,5
Seq#:47; Xaa Pos. 3,5
Seq#:48; Xaa Pos. 3,5

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27
Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51
Seq#:52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75
Seq#:76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99
Seq#:100,101,102,103,104,105,106,107,108,109,110

VERIFICATION SUMMARY

DATE: 12/20/2004

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Input Set : A:\Sunesis-0021.ST25.txt

Output Set: N:\CRF4\12202004\J726967A.raw

L:214 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:262 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:322 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0
L:342 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
L:362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0
L:382 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:0
L:402 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:0
L:422 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:0
L:442 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:0
L:462 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:0
L:482 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19 after pos.:0
L:745 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37 after pos.:0
L:770 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38 after pos.:0
L:795 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39 after pos.:0
L:820 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40 after pos.:0
L:845 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:41 after pos.:0
L:870 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:42 after pos.:0
L:895 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:43 after pos.:0
L:920 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:44 after pos.:0
L:945 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0
L:970 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:0
L:995 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:0
L:1020 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:0